

**Application Associates**

Phone 732-627-9400 – fax 732-627-9401



# OIL CLEANING CENTRIFUGE

## Model M300



### FEATURES

- True Centrifuge
- Reduces Hazardous Waste
- Reduces Engine Wear
- Extends Oil and Filter Life
- Removes Solids Below One Micron
- Diagnostic Tool
- User Friendly
- Easy Installation
- Rugged Construction



Made in U.S.A.

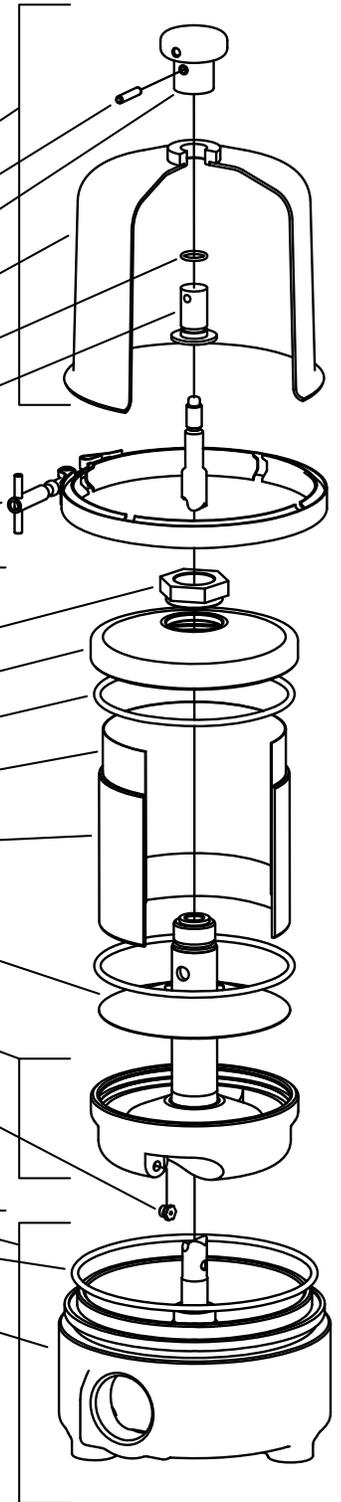
Installation • Service • Parts

# Parts List

## Model M300

### Parts List

Description	Part No.
<b>Cover Assembly (no clamp)</b> .....	<b>C300-CA</b>
Pin-Cover Nut .....	C300-12
Knob-Cover Nut .....	C300-14
Cover .....	C300-15
Seal-Cover Nut .....	C300-09
Nut-Cover .....	C300-13
<b>Clamp w/ Tee Handle-Cover to Base</b> .....	<b>C300-18</b>
<b>Centrifuge Turbine Assembly</b> .....	<b>C300-TA</b>
Nut-Turbine .....	C300-11
Cover-Turbine .....	C300-03
Seal-Turbine (2 req'd) .....	C300-10
Insert-Turbine (Package of 25) .....	C300-33P
Bowl-Turbine .....	C300-02
Baffle-Turbine .....	C300-04
<b>Base, Turbine Assembly (sold as assembly only)</b> .....	<b>C300-BTA</b>
Nozzle-Turbine (2 req'd) .....	C300-19-20
<b>Base Assembly (no clamp)</b> .....	<b>C300-MBA</b>
Seal, Base to Cover .....	C300-17
Base/Shaft (sold as assembly only) .....	C300M-16-A
<b>Model 300 Service Tool Kit</b> .....	<b>C300-SK</b>



# Installation and Operation

## Oil Supply to Centrifuge

Oil supply should be taken from a source as close to the lube oil pump discharge as possible and on the dirty side of the full flow oil filter. A 1/2" NPT pipe or #8 hose supply should be used for supply with a full-opening ball valve installed in supply line to allow the centrifuge to be isolated for cleaning without shutting the engine down. The centrifuge will operate efficiently at 30 to 90 psig with the preferred pressure of 60 to 80 psig.

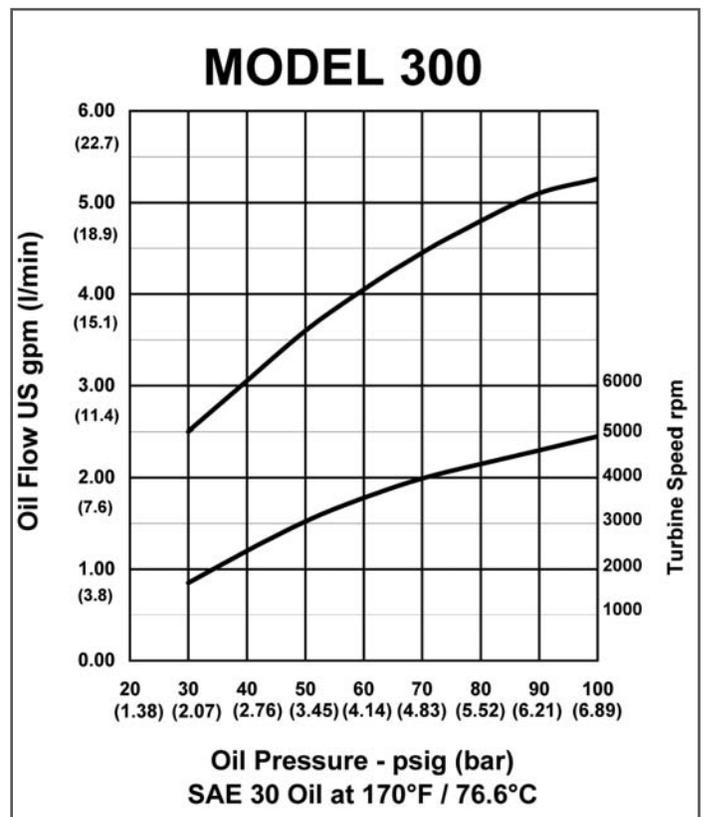
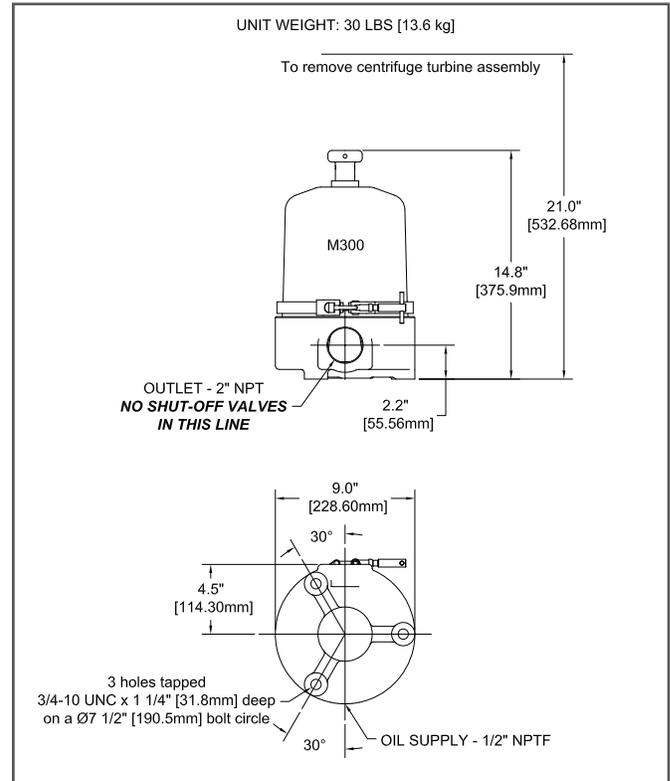
## Clean Oil Return to Sump

The clean oil drain line to the sump should be a 2.0" minimum diameter unrestricted hose or pipe to a 2.0" connection located above the oil level is required. Alternate oil fill openings or drilled-and-tapped holes in crankcase doors are options that can be used.

The drain is correct if you can drop in a 2.0" diameter ball and it can freely roll through the drain line into the engine. **The oil drain line should be free of any shut-off valves.**

## Mounting Considerations

SPINCLEAN™ Centrifuges are high-speed devices and should be securely mounted to prevent excessive vibration.



# Service Instructions

1. Shut off oil supply or stop the engine and allow centrifuge turbine assembly to come to a complete stop.
2. Remove cover clamp, unscrew cover and remove cover assembly.
3. Lift the turbine assembly a couple of inches and allow the oil to completely drain out of the nozzles before removing completely. Carefully separate the turbine assembly. **Do not strike the bushings with or against a hard surface or damage will result.** Remove lower turbine bowl seal and then remove baffle.
4. Carefully remove the solids cake from the turbine bowl, **Part # C300-02**, taking care not to damage the turbine bowl. Thoroughly wash away all traces of the solids cake to insure maintaining turbine balance.
5. Thoroughly clean all other turbine parts. Check turbine nozzles and make sure they are unrestricted. Inspect turbine bowl seals, **Part # C300-10**, for cuts or damage; they can be used several times. Examine top and bottom bearings for excessive wear. Replace turbine base assembly, Part # **C300-BTA**, if diameters exceed 0.503" (12.8 mm) top or 0.879 (22.3 mm) bottom.
6. Seat baffle in turbine base and install lower turbine bowl seal, **Part # C300-10**, in the turbine base. Install turbine insert, **Part # C300-33**, inside the turbine bowl. Reassemble the turbine assembly tightening the turbine nut securely using finger pressure only.
7. Examine stationary shaft journals for damage or excessive wear. Replace base assembly, **Part # C300-MBA**, if diameter is less than 0.496" (12.6 mm) top or 0.871" (22.1 mm) bottom. The stationary shaft is permanently installed and cannot be replaced.
8. Coat the stationary shaft with clean oil. Install the turbine assembly on the stationary shaft, being careful not to

damage bushings. Spin turbine assembly on the stationary shaft and make sure it spins freely and unrestricted.

9. Clean and inspect cover and make sure the cover seal is not leaking. If necessary, replace the seal, **Part # C300-09**, by removing the roll pin below the hand knob and remove the nut from the bottom.

10. Inspect the base to cover seal, **Part # C300-17**, and replace if necessary.

11. Replace the cover assembly and tighten the cover nut by hand pressure plus another half turn. Make sure the cover seats evenly around the base to insure proper crush on cover to base seal to prevent oil leaks. Reinstall the cover clamp and tighten securely.

12. Turn on oil supply to the centrifuge. With engine running, check complete installation for oil leaks or excessive vibration. If excessive vibration exists then disassemble, inspect and reassemble.

Note: All centrifuge turbines are factory tested for balance before leaving the factory. An out-of-balance condition can occur as a result of uneven build up of dirt cake in the bowl or as a result of excessive bearing or stationary shaft wear. Depending on conditions, wear will eventually take place on the stationary shaft and bearings, requiring replacement of the appropriate assemblies.

*SpinClean™ Representative:*

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